What is claimed is:

1. An orthopedic treatment apparatus comprising:

a.) protocol means for defining a biological manipulation to be performed upon a patient with an orthopedic injury to be treated according to a coordinated recovery scheme;

b.) a personal orthopedic restraining device, the personal orthopedic restraining device adapted for attatchment to a patient with an orthopedic injury to be treated and including means for monitoring patient exercise activity;

c.) a portable computer for retaining protocol means and recording monitored patient exercise activity;

d.) a central computer, segregated from the portable computer, the central computer including a file server(s), a database(s), memory, processing, display and communications and including means to generate the protocol means;

e.) a communication system allowing communication or data transmission between a pair of segregated, distinct computers; and

f.) an analysis interaction algorithm in the central computer for interpreting or determining patient performance automatically and for updating, improving, intervention or modifying patient protocols automatically.

2. An orthopedic treatment method comprising the steps of:

a.) fitting a patient with a personal orthopedic restraining device capable of monitoring patient exercise performance;

b.) providing a portable computer to carry protocol steps and record monitored infomation from the personal orthopedic restraining device;

c.) biologically manipulating the patient in the personal orthodpedic restraining device according to a treatment protocol;

d.) providing a central computer, segregated from the portable computer;

e.) communicating between the pair of distinct computers; and

f.) an analysis interaction algorithm located on the central computer for processing monitored information from the patient, formulating a protocol, modifying a protocol, and comparing the monitored information to the protocol.

3. The orthopedic treatment method of claim 2 and wherein the biological manipulation includes a step selected from the group steps consisting of:

chemical manipulation,

CNS stimulation of peripherally acting hormones (secretogogue),

parenterally administered peripherally acting hormones,

locally administered locally acting hormones

locally administered chemical (drugs), and

orally administered drugs/chemical agents.

4. The orthopedic treatment method of claim 2 and wherein the biological manipulation includes a step selected from the group of steps consisting of:

Biophysical stimulation,

heat,

vibration,

ultrasound,

electrical current,

electromagnetic waves, and

light (laser or non-laser).

5. The method of claim 2 and wherein the analysis interaction algorithm for evaluating orthopedic parameters monitored by the personal orthopedic restraining device and communicated from the portable computer to the central computer includes:

automated patient data performance analysis and reporting having :

a patient to prescribed exercise schedule,

a patient exercise performance compared to prescribed goals,

a patient exercise performance compared to benchmark,

a patient performance compared to historic norms, and

optionally, non-medical reports, and further includes:

automated patient protocol adjustment (either goal-based and/or contingency based) with an automated increase or decrease of prescribed exercise protocols based

upon patient response to past exercise protocol goals, and

an automated warning of treatment professionals of unusual or incident events.

6. The method of claim 2 and wherein the personal orthopedic restraining device includes transducers to enable detection and recording of mechanical information so as to effect control of the analysis by the algorithm at the central computer and to enable intervention into the protocol.

7. The orthopedic control system of claim 6 and wherein the system further includes the step of:

monitoring deviations to correlate with patient effort for central processing by the algorithm.

8. The orthopedic control system of claim 7 and further comprising:

means for intervention by altering the treatment protocol communicated from the central computer to the portable computer.

9.) The method of claim 2 and further comprising the step of:

a.) processing a host of inputs from a variety of sources for administration through a portable computer, wherein the inputs are selected from the group consisting of:

personal orthopedic restraining device identification data,

patient montoring data processed by the portable computer, and

patient psychological information.

10.) The orthopedic treatment method of claim 2 and further comprising the step of:

a.) providing an historic database of treatment protocols and using the database to supply the algorithm with exemplary protocols.

11. An orthopedic treatment control system comprising:

a.) a communication system allowing communication between a pair of distinct computers; and

b.) an analysis interaction algorithm.

12. The system of claim 11 and further comprising the step of:

a. providing a database of standardized orthopedic treatment protocols and patient outcomes to allow for comparisons of potential outcomes for a patient to be treated.

13. The system of claim 12 and wherein the database includes medical literature, historic data on previous patients, and updated data from current patients.

14. The system of claim 13 and further comprising the step:

including contingent or conditional logic within the treatment protocol to allow for real-time invention.

15. The system of claim 11 and wherein the communication system is selected from: communications between two file servers; communications between two mainframe computers; wireless communications between two microprocessors; and Internet communications.

16. The system of claim 11 and wherein the communications is real time communications and the communications is via telephone lines (POTS).

17. The system of claim 11 and wherein the communications is real time communications and the communications is via Internet.

18. A process of treating an orthopedic injury, the process comprising the steps of:

a. presenting a set of treatment protocols, wherein the set of protocols includes at least one treatment protocol;

b. approving a treatment protocol from among the presented set of treatment protocols;

c. capturing information identifying the approved treatment protocol of the set of presented protocols; and

d. generating information from the captured information into a form compatible with a handheld computer adapted for connection to an orthopedic sensor system, wherein the generated information includes parameters of the identified approved treatment protocol.

19. The process of claim 18 and further comprising the step of:

loading the generated information in the handheld computer.

20. The process of claim 18 and further comprising the step of:

monitoring patient activity relative to the approved treatment protocol and storing data resulting from the monitoring in the handheld computer.

21. The process of claim 18 and further comprising the steps of:

processing the stored data from the monitoring for compliance relative to the approved treatment protocol.

22. The process of claim 18 and further comprising the step of:

communicating information concerning the stored monitoring data to a central computer.

23. The process of claim 18 and further comprising the steps of:

communicating the processed stored data from the monitoring for compliance relative to the approved treatment protocol to a central computer, and

processing the communicated information at the central computer.

24. The process of claim 18 and further comprising the step of:

updating an historic database with the processed patient compliance information.